

REMARKS

By the present Amendment, Applicants amend claim 9 to more appropriately define the present invention. Support for this amendment is found in Applicants' specification at, for example, page 23, lines 14 to 29. Applicants have also amended claims 1-8, 10, 15-17, and 19-22 to improve form and not for reasons related to patentability. Claims 1-25 are pending, of which claims 15-19 and 21-25 have been allowed.¹

In the Office Action, the Examiner rejected claims 1-2, 6, 10-14, and 20 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,461,942 ("Watanabe et al."). Applicants respectfully traverse this rejection for the following reasons.

A rejection under § 102 is proper only when the claimed subject matter is identically described or disclosed in the prior art. *In re Arkley*, 455 F.2d 586, 587 (C.C.P.A. 1972). "For anticipation under 35 U.S.C. § 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly." M.P.E.P. § 706.02.

Watanabe et al. does not anticipate claims 1-2, 6, 10-14, and 20 because the reference fails to teach each and every element of the claims. With respect to claim 1, Watanabe et al. at least fails to teach a semiconductor manufacturing apparatus comprising a peeling mechanism to peel a PSA tape adhering to an element formation surface of a semiconductor wafer constituted by a plurality of semiconductor chips

¹ The Examiner did not indicate in the Office Action whether claim 4 is rejected. In a telephone conversation with the Examiner on September 12, 2005, the Examiner indicated that the rejection of claim 4 was inadvertently omitted and that it should have been included with the § 102(b) rejection.

which are separated therefrom “each of the semiconductor chips having an adhesive layer formed on the rear surface;” fails to teach the claimed “an adhesive layer formed on the entire rear surface” as recited in claim 2; and fails to teach the claimed “an adhesive layer formed on the element formation surface” as recited in claims 6 and 20. Watanabe et al. discloses a device for removing and conveying semiconductor chips in which the semiconductor chips are fixed on an upper surface 12a of a vacuum chuck only by suction. See col. 6, lines 28-39. Watanabe et al. does not disclose semiconductor chips that have an adhesive layer formed on a rear surface.

Therefore, Watanabe et al. fails to disclose each and every element of claim 1 and does not anticipate claim 1. Each of independent claims 2, 6, and 20, while of different scope than claim 1, include features corresponding to those of claim 1 not disclosed by Watanabe et al. Therefore, none of independent claims 2, 6, and 20 are anticipated by Watanabe et al.

Accordingly, Applicants respectfully submit that independent claims 1-2, 6 and 20 are allowable over Watanabe et al. In addition, claim 4 which depends from claim 2 and claims 10-14 which depend from allowable claim 1, are allowable for at least the same reasons.

The Examiner rejected claims 3, 7-9 under 35 U.S.C. § 103(a) as being unpatentable over Watanabe et al. for the reasons set forth in page 3 of the Office Action. Applicants respectfully traverse this rejection for at least the reasons presented below.

Each of claims 3, 7, and 8 requires a semiconductor manufacturing apparatus comprising a peeling mechanism to peel a PSA tape adhering to an element formation

surface of a semiconductor wafer. Claim 3 requires an adhesive layer formed on a rear surface of the wafer. Each of claims 7 and 8 require an adhesive layer formed on the element formation surface and the PSA tape adhering to the element formation surface via the adhesive layer. As explained with regard to claim 1, Watanabe et al. fails to disclose semiconductor chips of a semiconductor wafer that have an adhesive layer formed on a rear surface. Further, Watanabe et al. fails to disclose a device for operation on semiconductor chips of a wafer that have an adhesive layer formed on the element formation surface.

Further, as admitted by the Examiner, Watanabe et al. does not disclose cutting the semiconductor wafer into semiconductor chips together with the adhesive layer, as required by claims 3 and 7-9. Office Action at 3. Citing col. 9, lines 31-46 of Watanabe et al., however, the Examiner alleges that Watanabe et al. shows the adhesive tape can be cut, thus it would have been obvious to one of ordinary skill in the art to add a cutter to the apparatus of Watanabe et al. Id. Applicants respectfully disagree.

The section of Watanabe et al. cited by the Examiner only discloses dividing the dicing tape 18 on the semiconductor chips into strips, before individually removing each strip of dicing tape from the surface of semiconductor chips. See col. 9, lines 31-46. Dividing the dicing tape into strips along rows of semiconductor chips is entirely different from a cutting device to cut a semiconductor wafer into semiconductor chips together with the adhesive layer, as required by each of claims 3 and 7. Nowhere does Watanabe et al. teach cutting the semiconductor wafer and the adhesive layer into chips by use of a cutting tool.

Applicants' amended claim 9 is directed to a semiconductor manufacturing apparatus comprising a peeling mechanism having a sucking section for holding a semiconductor wafer through at least two suction paths, the suction paths being alternatively switched when part of the PSA tape is peeled off. Watanabe et al. fails to disclose or suggest any such feature.

Since Watanabe et al. fails to disclose or suggest all features of any of claims 3 and 7-9, those claims are allowable over Watanabe et al.

The Examiner rejected claims 3, 7-9 under 35 U.S.C. § 103(a) as being unpatentable over Watanabe et al. in view of U.S. Patent No. 6,342,434 ("Miyamoto et al.") for the reasons set forth in page 3 of the Office Action. Specifically, the Examiner stated that Watanabe et al. does not disclose a heater in the apparatus and relies upon Miyamoto et al. to teach the use of a heating device. Id.

Applicants respectfully point out that claims 3 and 7-9 do not contain a limitation relating to "a heater" as alleged by the Examiner. Applicants respectfully request the Examiner to provide further clarification.

Additionally, Miyamoto et al. fails to overcome the above noted deficiencies of Watanabe et al. with regard to claims 3 and 7-9. Therefore, claims 3 and 7-9 are allowable over Watanabe et al. and Miyamoto et al.

III. Conclusion

In view of the foregoing remarks, Applicants submit that this claimed invention is neither anticipated nor rendered obvious in view of the prior art references cited against

this application. Applicants therefore request the Examiner's reconsideration and reexamination of the application, and the timely allowance of the pending claims.

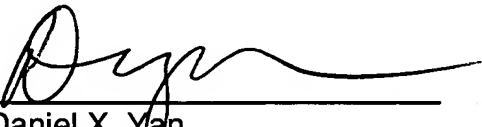
Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account no. 06-0916.

Respectfully submitted,

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